



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

October 11, 2011

Nancy Weintraub
Bonneville Power Administration
P.O. Box 3621, KEC-4
Portland, Oregon 97208-3621

Re: U.S. Environmental Protection Agency (EPA) comments on the Draft Environmental Impact Statement (DEIS) for the Klickitat Hatchery Complex Program
EPA Project Number: 09-040-BPA.

Dear Ms Weintraub:

This review was conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Under our policies and procedures, we evaluate the environmental impact of the proposed action and the adequacy of the impact statement.

The purpose of the Klickitat Hatchery Complex project is to restore Endangered Species Act (ESA) listed species and meet Yakama Nation trust responsibilities for fishing rights. Under the Northwest Power Act, the Bonneville Power Administration (BPA) must protect, mitigate, and enhance fish and wildlife affected by federal hydroelectric facilities on the Columbia River and its tributaries. The following are specific directives that serve as the basis for the analysis of the proposed changes to the Klickitat Hatchery Complex:

- Comply with the Federal Columbia River Power System (FCRPS) 2008 Biological Opinion to not impede the recovery of listed anadromous fish;
- Aid in the recovery of ESA listed mid-Columbia steelhead;
- Support the Yakama Nation's exercise of treaty fishing rights by rebuilding native anadromous fish stocks using artificial production; and
- Be consistent with the production and harvest objectives in the 2008-2017 *United States v. Oregon* Fish Management Agreement.

The action alternatives include Alternative 2- a full master plan build out and Alternative 3- Klickitat Hatchery build out. The alternatives propose similar management strategies except that Alternative 2 proposes a new hatchery facility at the Wahkiakus site to reduce the risk of predation and competition from non-native coho and fall Chinook to native mid-Columbia steelhead and bulltrout. The EPA supports the strategy of Alternative 2 to create a more segregated harvest and an integrated conservation component for steelhead. However, we have concerns with the lack of information regarding long term restoration and promotion of native wild viable sustainable populations (VSPs) of steelhead, lack of connection to the objectives of the Hatchery Reform and Hatchery Scientific Review Group (HSRG), and potential impacts to water quality from withdrawal at the additional hatchery facility. Our concerns and recommendations are discussed in detail in Attachment 1.

Based on our review, we have assigned the DEIS a rating of EC-2. A copy of the EPA rating system is also enclosed. We appreciate this opportunity to comment and if you have any questions or concerns please contact me at (206) 553-1601 or by electronic mail at reichgott.christien@epa.gov, or you may contact Lynne McWhorter of my staff at (206)553-0205 or by electronic mail at mcwhorter.lynne@epa.gov.

Sincerely,



Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosures:

EPA Detailed Comments Klickitat Hatchery Complex Program
EPA Rating System for Draft Environmental Impact Statements

Attachment 1
The EPA Region 10 Detailed Comments on the
Draft EIS for the Klickitat Hatchery Complex Program
October 11, 2011

ESA Listed Mid-Columbia Steelhead

The EPA provided scoping comments on the federal register notice. One of our primary recommendations was that the EIS discuss temporary hatchery operations. We stated that hatcheries can be a useful part of a comprehensive, integrated approach to restoring sustainable runs of salmonids, but by themselves should not be the only solution to restoring salmonid populations. We also acknowledged that hatcheries serve an important role in meeting commercial, tribal and public harvest obligations and while production for harvest is a legitimate hatchery objective, adverse impacts on natural populations associated with harvest management of artificially produced populations should be minimized. We commend BPA for providing an extensive discussion of current conditions and a thorough impact analysis. However, the DEIS does not address the underlying need to advance activities that could restore native populations. The DEIS discusses the Yakima/Klickitat Fisheries Project, which is a comprehensive adaptive management project designed to restore anadromous fish and the habitats that support them in the Yakima and Klickitat subbasins. However, the analysis does not include a method for meeting these goals or plan to shift from artificial propagation to supporting native VSPs. The FEIS should discuss the actions needed and likelihood to move from hatchery supplied salmonids to self sustaining populations.

The Klickitat hatchery is Mitchell Act funded and the EIS acknowledges the Mitchell Act Hatchery reform effort and HSRG. The EPA provided comments on NOAA's NEPA analysis for the Mitchell Act hatchery reform and we agreed with the point that adverse effects of hatchery operations are contributing to the decline of listed salmon and steelhead in the Columbia Basin. The Klickitat EIS also refers to the Biological Opinion (BO) that NOAA released in 2008 for FCRPS, which includes Best Management Practices (BMPs) for managing hatchery programs. Both the BO and HSRG identify approaches to assist in the recovery of indigenous salmonids. The HSRG provides four overarching goals to: conserve indigenous salmonid genetic resources, assist in the recovery of naturally spawning salmonid populations, provide for sustainable fisheries, and improve the quality of hatchery programs. The BMPs identify 12 specific actions, which were developed from research and review¹ to reduce ecological risk and genetic introgression. These actions include:

- Operate programs within an integrated management context;
- Various release restrictions;
- Only implement hatchery programs that provide a benefit;
- Scale programs to carrying capacity.

The EIS's focus appears to be more on the hatchery component of the HSRG and BO while not specifically addressing the recovery of salmonids. The discussion revolves around segregation rather

¹ Kostow, K. 2008. Factors that contribute to the ecological risks of salmon and steelhead hatchery programs and some mitigating strategies. Reviews in Fish Biology and Fisheries 19(1):9-31.

than clearly identifying major actions to aid in recovery. Furthermore, the BMPs identified in the EIS are designed to minimize short-term effects from construction rather than long term recovery. Although we believe the EIS integrates actions that may reflect the BO and BMPs (e.g., release restrictions), the EIS does not provide a clear link to HSRG and the BO requirements.

Regarding the above discussion of the BO, we also understand that there was a U.S. Oregon District Court ruling² that found that the BO “failed to identify specific mitigation plans beyond 2013...” The final EIS should discuss how hatchery management will incorporate subsequent mitigation that NOAA develops for the ten year term of the BO and/or other follow up requirements that result from the ruling.

The Adaptive Management Implementation Plan (part of the BO) identifies BPA as the primary agency for safety-net hatchery program implementations³. The DEIS does not explain this program or discuss BPA’s role in its implementation. We are unclear how this program might relate to the Klickitat hatchery. The final EIS should discuss the context of this program and relevance, if any, to this project.

The EPA recommends that final EIS include:

- Potential actions to promote an indigenous sustainable population of mid-Columbia steelhead.
- A discussion on temporary hatcheries based on a successful steelhead recovery program. If this does not appear foreseeable, the final EIS should disclose how this project complies with ESA to aid in the recovery of listed species and identify issues impeding full recovery.
- A section clearly demonstrating how this project incorporates the goals of the hatchery reform and required BMPs included in NOAA’s 2008 BO.
- A discussion on recent developments related to court rulings, mitigation, and ESA listed species.
- Context of the safety-net hatchery program related to this project and BPA’s role.

Water Quality

The Klickitat River currently meets water quality standards and we appreciate the discussion on hatchery facilities complying with the National Pollutant Discharge Elimination System permit for aquaculture facilities. The DEIS states that proposed Wahkiacus hatchery site could potentially impact water quality on Swale Creek, which is water quality impaired in the lower portion due to high temperature and low flow conditions. Temperatures in Swale Creek often approach lethal temperatures for adult and juvenile salmonids (greater than 22 degrees C). The full build out (Alternative 2) proposes withdrawal of surface water from Swale Creek during high flows and the DEIS acknowledges that this may cause direct adverse effects to water quality.

Preventing water quality degradation is one of EPA’s primary concerns. Section 303(d) of the Clean Water Act (CWA) requires the state of Washington identify impaired water bodies that currently or would potentially fail to meet state water quality standards, and to develop a Total Maximum Daily Load (TMDL) for each waterbody and pollutant on the 303(d) list of impaired waters. We also believe

² US District Court, District of Oregon Portland Division. 2011. *National Wildlife Federation v. National Marine Fisheries*, D.Or. CV01-00640-RE, Opinion and Order.

³ FCRPS. 2009. *FCRPS Adaptive Management Implementation Plan, 2008-2018 FCRPS Biological Opinion*. http://www.salmonrecovery.gov/Files/BiologicalOpinions/AMIP_09%2010%2009.pdf

that the species recovery goals under ESA are directly in line with the "fishable/swimmable" goal of the Clean Water Act (protection and propagation of fish, shellfish, and wildlife and recreation in and on the water).⁴ The EIS does not identify whether or not a TMDL has been established or discuss coordination with the state to comply with the CWA 401 certification⁵ to protect water resources and support beneficial uses. Furthermore, the DEIS states (Pg 3-37) that no mitigation is proposed or required. We are concerned with impacts to water quality impaired streams and strongly recommend that BPA work with the State and Tribes to develop mitigation to avoid adverse impacts to surface water.

The DEIS includes projected NPDES effluent characteristics for the proposed Wahkiacus hatchery facility (Table 3-14). It would be useful to include the applicable water quality standards and/or technology based limits for comparison.

The EPA recommends that the final EIS include:

- Information on the status of TMDLs for listed surface waters/watersheds.
- Mitigation to minimize impacts to Swale Creek.
- Information on the coordination with the CWA 401 Certification process and associated requirements.
- A list of water quality and technology based standards for comparison to existing and projected effluent discharge of facilities.

Water Conservation

The hatchery facility will require groundwater supply and withdrawal from surface water (mainly Klickitat River) to support propagation facilities. The DEIS does not identify impacts to groundwater levels and states that impacts to the Klickitat River are minimal. Groundwater is declining throughout the Columbia basin's basalt system and a report⁶ on groundwater in nearby counties within the Columbia River basalt (Adams, Franklin, Grant, and Lincoln) suggests that there does not appear to be a significant natural recharge. We support the approach to utilize state of the art methods and technology at hatchery facilities. We understand that the current proposal includes some recycling of water. Construction of a new facility provides the opportunity to integrate innovative and state of the art design and operation features. To support energy and resource conservation we strongly encourage BPA to consider facilities that minimize energy and water consumption⁷. An example of an alternative propagation program that may be useful to consider is the pilot project at Chelan public utilities district (PUD), Chiwawa and Eastbank facilities.

Chelan PUD initiated a pilot project to test the viability of a circular water reuse system with the goal to reduce water consumption. The test facility is in place for steelhead and summer Chinook rearing and

⁴ Clean Water Act Section 101(a)(2)

⁵ It should be noted that EPA is the permitting authority (NPDES and 401 certification) for projects that discharge to Waters of the US on federal or tribal lands.

⁶ CWMA. 2009. *Groundwater Level Declines in the Columbia River Basalt Group and their Relationship to Mechanisms for Groundwater Recharge: A Conceptual Groundwater System Model*.

http://www.cbgrwma.org/pdf/GWMA_Groundwater%20Level%20Declines_%20TEXT_June%202009.pdf

⁷ Also refer to Executive Order 1342. 2007. *Strengthening Federal Environmental, Energy, and Transportation Management*, was signed on January 24, 2007, to strengthen key goals for the Federal Government

thus far has successfully produced “high-quality fish”⁸ and the Eastbank facility uses 90 percent less water than the traditional, rectangular concrete raceway. For any questions about this facility, please contact Chelan PUD for additional information. We recommend the following reference for information on recommended management practices of recirculation aquaculture systems:

Summerfelt, S.T., Vinci, B.J. 2008. Better Management Practices for Recirculating Aquaculture Systems. In: Tucker, C.S., Hargreaves, J.A., editors. Environmental Best Management Practices for Aquaculture. Ames, IA: Blackwell Publishing. p. 389-426.

The EPA recommends that the final EIS include:

- Details of the design plan that support energy and water conservation.

⁸ Chelan PUD. 2010. *Water-saving effort seems to help fish, too.* <http://www.chelanpud.org/8620.html>

**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.